

REMARKS

Reconsideration and allowance of this application are respectfully requested.

Claims 1-10, rejected under 35 USC 112, first paragraph have been amended to overcome this rejection.

The 35 USC 102 rejections based on Koide et al (US Patent 5,993,679) and Caputo et al (US Patent 5,413,758) are respectfully traversed.

Amended claim 1 includes the following limitations:

(a) vaporizing a cleaning agent;

(b) supplying the vaporized cleaning agent into the chamber;

(c) directly forming a metal complex by contacting the vaporized cleaning agent with the prescribed metal inside of the chamber; and

(d) subliming the metal complex and exhausting it from the chamber.

A film deposition equipment chamber is cleaned by a vaporized cleaning agent that directly complexes metal. Upon supply of the cleaning gas in the chamber, metal stuck inside the chamber is complexed. The complexed metal is removed during evacuation of the chamber.

Our claimed cleaning methods do not require a step of oxidizing metal stuck within the chamber. This results in fewer required steps than are necessary with known cleaning methods. Also the influence on remaining oxygen is small (see column 0007, 0012 of the specification).

Neither Koide et al. nor Caputo et al. teach our claimed combination of features.

Koide suggests a cleaning method of thin film deposition apparatus using β -diketone. The Koide method, however, requires a step of introducing oxide into the thin

film deposition apparatus. In Koide, our claimed step of "directly forming a metal complex by contacting the vaporized cleaning agent with the prescribed metal" is not suggested.

Caputo teaches sterilization within a sterilization chamber by the use of a gaseous peracid antimicrobial agent. In Caputo, our claimed step of "directly forming a metal complex by contacting the vaporized cleaning agent with the prescribed metal" is not suggested. Also, Caputo does not suggest "exhausting the metal complex."

Thus, our claim 1 is neither anticipated nor even rendered obvious by either Koide or Caputo.

Amended Claim 9 similarly distinguishes from these references.

In view of the foregoing, the claims are now believed to be in form for allowance, and such action is hereby solicited. If any point remains in issue which the Examiner feels may be best resolved through a personal or telephone interview, please contact the undersigned at the telephone number listed below.

All objections and rejections having been addressed, it is respectfully submitted that the present application is in a condition for allowance and a Notice to that effect is earnestly solicited.

Respectfully submitted,

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